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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,000	12/11/2001	Heinz Gerhard Kohn	DT-5085	2105
30377	7590	06/15/2004	EXAMINER	
DAVID TOREN, ESQ. SIDLEY, AUSTIN, BROWN & WOOD, LLP 787 SEVENTH AVENUE NEW YORK, NY 10019-6018			SNAY, JEFFREY R	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/015,000	Applicant(s) KOHN, HEINZ GERHARD	
	Examiner Jeffrey R. Snay	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, each of claims 1-8 are directed to a "laboratory tempering device" but fail to recite any structure by which the device can be defined. Instead, the claims recite merely a method performed by the device. Since the claims fail to recite any structure associated with the device, the scope of the claims cannot be discerned in a meaningful way.

Claim 1 is further indefinite because it includes references to the Figures in the body of the claim. Such use of Figures in claim language is improper.

Claim Objections

3. Claim 8 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, claim 8 is identical in scope with parent claim 7.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Danssaert et al ('263).

The instant claims have been given the best possible consideration in light of the extent of indefiniteness, described above. As such, the instant claims appear to intend recitation of a device which includes a two dimensional array for holding samples and temperature controlling means by which portions of the samples within the array are subject to a temperature gradient while other portions are subject to a uniform temperature. The device enables one to ascertain the optimal temperature within the applied gradient relative to an overall desired process.

Viewed in this light, the instant claims are clearly anticipated by Danssaert et al. Danssaert et al disclose a device for determining the optimal temperature for a step in a multistep thermal cycling process. Specifically, the device comprises a plurality of two dimensional arrays, one of which arrays is subjected to a thermal gradient while the remaining arrays are subject to uniform processing temperatures. The temperature gradient is applied parallel to the rows or columns of the array. See e.g. Figure 2. Danssaert et al teach as one application the provision of the gradient array in the annealing step of a nucleic acid amplification reaction. Uniform temperature arrays are provided for the remaining steps of denaturing, extending and storing. See e.g. Figure

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3 of Danssaert et al. In this manner, the device of Danssaert et al enables the selective determination of optimal temperature for the annealing step of the reaction.


Furthermore, the gradient array is further provided with heating means such that the array can be operated at uniform rather than gradient temperatures (column 6, lines 39-42), and additional gradient arrays within the device are also disclosed (column 10, lines 5-12). Thus, Danssaert et al enable one of ordinary skill in the art to provide temperature gradient arrays to other steps in the reaction process while returning the annealing stage to uniform temperature. By this structure, the disclosed device would have been fully capable and enabled for determining the optimal temperature for each step in the amplification process.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as general background information generally related to applicant's field of endeavor.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Snay whose telephone number is (571) 272-1264. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffrey R. Snay
Primary Examiner
Art Unit 1743

jrs

6-10-04